BIOMETRY

LAND COVER AND TREE HEIGHTS

Lynxes:

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RESEARCH QUESTIONS

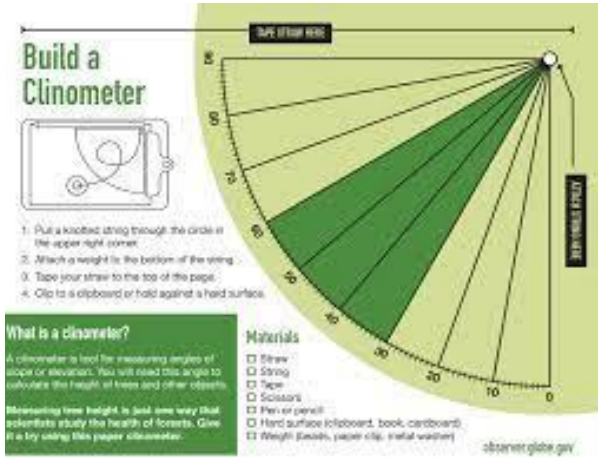
- How we can compare the manual observations from the land cover site to the observations from the Globe Observer app and satellite data.
- How we can use our data and results with other data and results from atmosphere, hydrosphere, pedosphere to go further.

HYPOTHESES

- We think that in the forest will be more deciduous trees.
- We think there will be more evergreen trees and marine water.
- According to the map, we think there will be bigger trees.

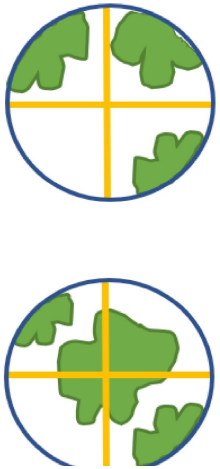
LOCATION

- Latitude: 59.614473
- Longitude: 25.890536



The GLOBE Program
www.globe.gov

MUC Field Guide
A Key to Land Cover Classification



MATERIALS

- Square 30x30m
- Densiometer
- MUC field guide
- Strings and flags
- Clinometer
- App GLOBE Observer
- Plant Encyclopedia and Google Lens

METHODS

RESULTS 1

- MUC Code: 0192 – Closed Forest, Mainly Evergreen, temperate and subpolar needle-leaved, irregularly rounded crowns.
- Canopy cover % 62.68
- 52 evergreen trees
- 4 deciduous trees
- Ground observations:
  - Green 57 – 81%
  - Brown 14 – 19%

RESULTS 2

- Tree Heights - Manual Measurements
  - Tree 1
    - 17.6m
    - 17.6m
    - 17.5m
    - Circumference – 88cm
    - App: 18.3m

  - Tree 2
    - 5.2m
    - 4.9m
    - 5m
    - Circumference – 25cm
    - App: 4.91m

RESULTS 3

Plants identified on the plot (13 + 2 plants we could not identify)

English name	Latin name
Lingonberry	Vaccinium vitis-idaea
Blueberry	Vaccinium myrtillus
Heather	Calluna vulgaris
Pine	Pinus sylvestris
Birch	Betula pendula
Glittering woodmoss	Hylocomium splendens
Red-stemmed feather moss	Pleurozium schreberi
Black crowberry	Empetrum nigrum
Chickweed-wintergreen	Trientalis europaea
Canadian hawkweed	Hieracium umbellatum
Rowan	Sorbus aucaparia
Common cow-wheat	Melampyrum pratense
Wavy hair-grass	Deschampsia flexuosa

CONCLUSIONS

- We think that in the forest will be more deciduous trees.
  - ***Our hypothesis was wrong, because there were almost none. (52E>4D)***
- We think there will be more evergreen trees and marine water.
  - ***Our hypothesis was right, we could see it on our own eyes*** ☺
- According to the map, we think there will be bigger trees.
  - ***Our hypothesis was correct, but there are also smaller trees.***

- ***Potential next steps toward a 2023 IVSS project:***
  - Comparing different countries (US, Estonia, Czech Republic, Lithuania)
  - Comparing our data to the atmosphere group of the same location

THANK YOU FOR YOUR ATTENTION <3